PATENT
Attorney Docket No. 52186

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. 7,106,693 Confirmation No. 3173

Issued: September 12, 2006

Name of Patentee: Turner et al.

Title: Method and Apparatus for Pacing the Flow of Information Sent from a Device

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT FOR APPLICANTS' MISTAKE (37 C.F.R. § 1.323)

Attn: Certificate of Correction Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

It is requested that a Certificate of Correction be issued to correct a mistake found the above-identified patent. Attached hereto is a Certificate of Correction which indicates the requested correction. For your convenience, also attached are copies of selected pages (a) from the issued patent with the error annotated, and (b) from Applicants' Amendment C filed April 28, 2006, introducing the obvious typographical error.

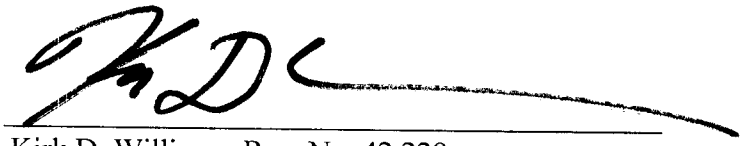
In Amendment C, Applicants introduced a typographical error in dependent claim 33 (issued claim 16), which depends from independent claim 30 (now issued claim 13). Clearly, there was a typographical error as the format of issued independent claim 13 is of "computer-readable media" (not "method"), thus issued claim 16 should refer to the "computer-readable media of claim 13" (not the "method" of claim 13) as recited in issued dependent claims 14-15 and 17-18.

A certificate of correction is proper as this error is of the nature of an obvious typographical error, correction of this error does not constitute new matter, correction of this error does not require reexamination, and the requisite fee under 37 CFR 1.20(a) was paid via EFS-Web with the submission of this Request for Certificate of Correction.

Finally, any additional fees that may be due in connection with this paper are authorized to be charged to Deposit Account No. 501430.

Respectfully submitted,
The Law Office of Kirk D. Williams

Date: January 20, 2010

By 

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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,106,693
APPLICATION NO. : 09/705,395
DATED : Sep. 12, 2006
INVENTOR(S) : Turner et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 13, line 27, Claim 16, replace "The method of claim 13"
with – The computer readable media of claim 13 –

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13. One or more computer-readable media containing computer-executable steps for pacing the flow of information from a device, said steps comprising:

inserting an entry into one of a plurality of timing wheels;

removing the entry from said one of the plurality of timing wheels at an appropriate time corresponding to a position of the entry in the plurality of timing wheels;

placing the entry into a transmit list in response to removing the entry from said one of the plurality of timing wheels, wherein the transmit list is not associated with a time slot within the plurality of timing wheels, and the transmit list is configured for maintaining a plurality of entries removed from said timing wheels;

in response to identifying the entry is the next entry to process from the transmit list: removing the entry from the transmit list; sending information corresponding to the entry, and determining a next target time and re-inserting the entry removed from the transmit list into the plurality of timing wheels based on the next target time.

14. The computer-readable media of claim 13, wherein the plurality of timing wheels include two timing wheels each having different time granularities.

15. The computer-readable media of claim 13, wherein the next target time is determined from a last target time.

Should be: "computer-readable media"

16. The method of claim 13, wherein the transmit list includes at least one other entry removed from a particular one the plurality of timing of timing wheels when said removing the entry from the transmit list is performed.

17. The computer-readable medium of claim 13, wherein each of the plurality of timing wheels are used to schedule information of a same priority level.

18. The computer-readable medium of claim 13, wherein said steps include selecting said one of the plurality of timing wheels, prior to said inserting the entry, based on said one of the plurality of timing wheels having the finest granularity of said wheels of the plurality of timing wheels and whose range includes the target time of the entry and regardless of a rate corresponding to the entry.

19. An apparatus for pacing the flow of information from a device, said apparatus comprising:

means for inserting an entry into one of a plurality of timing wheels;

means for removing the entry from said one of the plurality of timing wheels at an appropriate time corresponding to a position of the entry in the plurality of timing wheels;

means for placing the entry into a transmit list in response to removing the entry from said one of the plurality of timing wheels, wherein the transmit list is not associated with a time slot within the plurality of timing wheels, and the transmit list is configured for maintaining a plurality of entries removed from said timing wheels;

means for in response to identifying the entry is the next entry to process from the transmit list: removing the entry from the transmit list, sending information corresponding to the entry in response to the entry being removed from the transmit list, and determining a next target time and re-inserting the entry removed from the transmit list into the plurality of timing wheels based on the next target time.

20. The apparatus of claim 19, wherein the plurality of timing wheels include two timing wheels each having different time granularities.

21. The apparatus of claim 19, wherein the next target time is determined from a last target time.

22. The apparatus of claim 19, wherein the transmit list includes at least one other entry removed from a particular one the plurality of timing of timing wheels when said removing the entry from the transmit list is performed.

23. The apparatus of claim 19, wherein each of the plurality of timing wheels are used to schedule information of a same priority level.

24. The apparatus of claim 19, including means for selecting said one of the plurality of timing wheels, prior to said inserting the entry, based on said one of the plurality of timing wheels having the finest granularity of said wheels of the plurality of timing wheels and whose range includes the target time of the entry and regardless of a rate corresponding to the entry.

25. An apparatus for pacing the flow of information from a device, said apparatus comprising:

one or more timing wheels;

one or more transmit lists;

a timing wheel process configured to repeatedly advance through said timing wheels and at corresponding scheduled times and to remove entries from said timing wheels at their respective scheduled times and to add said removed entries to said transmit lists, wherein said transmit lists are not associated with a time slot within any of the plurality of timing wheels and said entries added to said transmit lists are not associated with a time slot of said timing wheels while awaiting processing by a transmit list process; and

the transmit list process configured to, when said transmit lists are not empty: remove a next particular entry from said transmit lists, send information corresponding to the next particular entry, determining a next target time for the particular entry, and causing the next particular entry removed from said transmit lists to be re-inserted into said timing wheels based on the next target time.

26. The apparatus of claim 25, wherein each transmit list of said one or more transmit lists is configured to store a plurality of entries.

* * * * *

From Amendment C filed 4-28-2006

Now Claim 13

Claim 30 (currently amended): One or more computer-readable media containing computer-executable steps for pacing the flow of information from a device, said steps comprising:

inserting an entry into one of a plurality of timing wheels;

removing the entry from said one of the plurality of timing wheels at an appropriate time corresponding to a position of the entry in the plurality of timing wheels;

placing the entry into a transmit list in response to removing the entry from said one of the plurality of timing wheels, wherein the transmit list is ~~distinct from data structures of the plurality of timing wheels identifying timing positions within the plurality of timing wheels~~ not associated with a time slot within the plurality of timing wheels, and the transmit list is configured for maintaining a plurality of entries removed from said timing wheels;

in response to identifying the entry is the next entry to process from the transmit list: removing the entry from the transmit list; sending information corresponding to the entry, and determining a next target time and re-inserting the entry removed from the transmit list into the plurality of timing wheels based on the next target time.

Claim 31 (previously presented): The computer-readable media of claim 30, wherein the plurality of timing wheels include two timing wheels each having different time granularities.

Claim 32 (previously presented): The computer-readable media of claim 30, wherein the next target time is determined from a last target time.

Now Claim 16

Claim 33 (previously presented): The method of claim 30, wherein the transmit list includes at least one other entry removed from a particular one the plurality of timing of timing wheels when said removing the entry from the transmit list is performed.

should read "computer-readable media" consistent with all dependent claims from Claim 13 (formerly Claim 30)